Carnegie Learning, Inc.

Algebra I

The Algebra I curriculum is based on 20 years of research at Carnegie Mellon Univ into the strategies students use to solve algebra problems. The Algebra I curricula uses students intuitive problem-solving abilities to help them comprehend and master higher-order mathematical concepts. Classroom activities address both mathematical content and process standards. Students engage in problem solving, communication and reasoning while making connections using multiple representations. The textbook provides an opportunity for extended investigations, analysis and alternate solution paths. Real-world situations are used in problems designed to emphasize connections between verbal, numeric, graphic and algebraic representations. The classroom environment promotes discourse, collaborative work and depth of understanding.

Curriculum is correlated to the Kentucky Program of Studies and Core Content for Assessment 4.1. In 2007, the curriculum was recognized by the Kentucky Committee for Mathematics Achievement as the top rate middle school program. Algebra I is also supported by a comprehensive Professional Development plan.

Teacher Edition		
9781932409598		$85.00
Algebra I Teacher Edition		
Essential Items		
9781932409611	Nimas	
Algebra I Student Assignments		
9781932409628	Nimas	
Algebra I Homework Helper		
Ancillary Items		
9781934800102	Section 508	$271.20
Algebra I Cognitive Tutor Software		
Free with Purchase items		

ISBN
9781932409581

Contract Price
$76.00

Grade
7,8,9

TYPE
P2

Copyright
2008

Author
Carnegie Learning, Inc.

Edition
2008

Content
Algebra I

Readability
Lexile = 910

Accessibility
Nimas

Research
www.carnegielearning.com/approach_research.cfm

Provided by the Publisher

ISBN 9781932409581	Publisher - **Carnegie Learning, Inc.**		
Algebra I			
Type - P2	Author - Carnegie Learning, Inc.		
Copyright - 2008	Edition - 2008	Readability - Lexile = 910	
Course - Algebra I		Grade(s) - 7,8,9	
Teacher Edition ISBN if applicable..... 9781932409598			

Provided by the Publisher

Overall Recommendation: **Recommended as BASAL**

if this box is not checked, the evaluators have chosen NOT recommend as basal

Overall Strengths, Weaknesses, Comments:

The inquiry-based approach of the textbook allows most students to access the full Algebra I curriculum. There is a focus on real-world applications and justification of results. Differentiation is limited, and little attention is given to developing prerequisite skills or maintaining algebra skills.

NIMAC Accessibility	N	
Ancillary	Yes	
Free with Purchase	No	
Research	Yes	www.carnegielearning.com/approach_research.cfm

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CRITERIA

This basal resource …

A. Encompasses KY Content Standards & Grade Level Expectations	**Strong Evidence**

Text is designed to be used in an elective course outside the Program of Studies

1) Includes the 5 Big Ideas of mathematics to the following extent:	
a) Number Properties and Operations	Strong Evidence
b) Measurement	Moderate Evidence
c) Geometry	Not Applicable
d) Data Analysis and Probability	Strong Evidence
e) Algebraic Thinking	Strong Evidence
2) Addresses content-specific enduring understandings from the related	Strong Evidence

Program of Studies standards.	
3) Addresses content-specific skills and concepts from the related Program of Studies standards.	Strong Evidence
4) Content addressed is current, relevant and non-trivial	Strong Evidence
5) Provides opportunities for critical thinking/reasoning	Strong Evidence

6) Strengths, Weaknesses, Comments:

- Specific strengths-which areas/concepts are covered exceptionally well?
- Specific weaknesses-which areas/concepts would likely require supplementing?

The textbook thoroughly addresses algebra and number concepts, along with a significant number of topics from probability and measurement. The inquiry method used by the textbook develops critical thinking skills.

B. Functionality & Suitability	**Moderate Evidence**

1) Suitability	**Strong Evidence**

- Should be suitable for use with a diverse population and is free of bias regarding race, age, ethnicity, gender, religion, social and/or geographic environment; is free of stereotyping or bias of any kind.

2) Content quality	**Strong Evidence**

- Free from factual errors
- Content is presented conceptually when possible—more than a mere collection of facts
- Content included accurately represents the knowledge base of the discipline
- Theories/scientific models contained represent a broad consensus of the scientific community
- Interconnections among mathematical topics

3) Connections to Literacy	**Strong Evidence**

- Employs a variety of reading levels and is grade/level appropriate
- Use of multiple representations-concrete, visual/spatial, graphs, charts, etc.
- Provides opportunities for summarizing, reviewing, and reinforcing vocabulary skills and concepts at multiple levels of difficulty for a variety of learning styles.
- Student text provides opportunity to integrate reading and writing
- Uses vocabulary that is age and content appropriate
- Focuses on critical vocabulary vs. extensive lists
- Identifies key vocabulary through definitions in both text and glossary
- The text is engaging and facilitates learning
- Embedded activities enhance the understanding of the text
  Note: may apply to either student or teacher editions

4) Connections to Technology	**Little or No Evidence**

- Integrates technology and reflects the impact of technological advances
- Uses technology in the collection and/or manipulation of authentic data
- Embeds web links as a mathematics resource.

5) Support for Diverse Learners	**Little or No Evidence**

- Provides support for ESL students
- Provides support for differentiation of instruction in diverse classrooms
- Challenge for gifted and talented students
- Support for students with learning difficulties

Note: may apply to either student or teacher editions

6) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

Charts and graphs are well-utilized to facilitate learning. Students are given frequent opportunities to write about mathematics and to justify answers. The glossary contains diagrams that illustrate concepts as well as examples. A wide variety of real-world situations are used to introduce concepts and to demonstrate application of the concepts. Some students may find the book difficult to read. The use of technology is not evident. Little differentiation or extension is provided.

C. Supports Inquiry and Skill Development — Strong Evidence

1) Promotes Inquiry, research and Application of Learning — Strong Evidence

- Provides opportunities for inquiry and research that includes activities such as gathering information, researching resources, observing, interviewing, and evaluating information, analyzing and synthesizing data and communicating findings and conclusions, formulating authentic questions to deepen and extend mathematical reasoning.
- Requires students to use higher-level cognitive skills (analysis, synthesis, evaluation, generalizing, justifying, etc.)
- Provides activities and projects for students to deepen their knowledge and cultivate and strengthen problem-solving and decision-making skills.
- Provides opportunities for application of learned concepts.
- Uses a variety of relevant charts, graphs, diagrams, number lines, and other illustrations to invite and motivate students to engage in discussion, problem solving, and other high-order thinking skills.
- Emphasizes conceptual understandings that invite students to predict, conclude, evaluate, develop and extend ideas to support reasoning.
  Note: may apply to either teacher or student edition

2) Skill Development — Moderate Evidence

- Provides opportunities to make sense of all mathematics
- Provides opportunities to recognize, create, and extend patterns.
- Provides opportunities for critical thinking and reasoning.
- Provides opportunities to justify/prove responses.
- Provides opportunities to ask deeper questions.
- Contains embedded activities (or extensions) that emphasize use of technology for problem solving
  Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

Inquiry approach engages students in higher-order thinking. A wide variety of real-world applications are explored. Graphs and charts assist students in understanding the problems. Technology is little utilized.

D. Supports Best Practices of Teaching and Learning — Moderate Evidence

1) Engages Students — Moderate Evidence

- Includes content geared to the needs, interests, and abilities of all students
- Engages and motivates students using components such as real-life situations, simulations, experiments, and data gathering.
- Includes information and activities that assist students in seeing relevance of concepts (where appropriate) to their own lives and experiences
- Provides a variety of strategies, activities, and materials to enhance student learning at the appropriate learning levels
- Activities are truly congruent to the concepts addressed, not merely correlated

Note: may apply to either teacher or student edition

2) Uses Assessment to Inform Instruction Moderate Evidence

- Includes multiple means of assessment as an integral part of instruction
- Provides evaluation measures in the teacher edition that supports differentiated learning activities
- Embedded assessments reflect a variety of Depth of Knowledge levels
  Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards

The textbook includes many real-world applications and problem situations. Little differentiation is evident, nor is there a significant number of extensions.

E. Has an Organization/ Format that Supports Learning and Teaching **Moderate Evidence**

1) Organizational Quality Moderate Evidence

- Print and/or electronic materials present minimal barriers to learners, but also add encouragement for students to stretch and make further explorations.
- Presents chapters/lessons in an organized and logical sequence
- Provides clearly stated objectives for each lesson.
- Uses text features (e.g., titles, headings, subheadings, review questions, goals, objectives, space, print, type size, color) to enhance readability.
- Makes use of various forms of media (e.g., CD's, recordings, videos, cassette tapes, computer software, web-based components, interactive software, calculators, physical and virtual manipulatives) as either student or teacher resources
- Includes clear, accurate, appropriate and clearly explained illustrations and/or graphics that reinforce content standards.
- Incorporates a glossary, footnotes, recordings, pictures, and/or tests that aid pupils and teachers in using the book effectively
- Uses grade-appropriate type size
- Included media are durable, easy to use and have technical merit
- Construction appears to be durable and able to withstand normal use

2) Essential Components (beyond student and teacher text) Little or No Evidence

- Items identified as essential components support the learning goals and concept coverage of the basal

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

Lessons include specific objectives. The glossary is comprehensive and easy to use, with supporting diagrams. As the student text is paperbound with perforated pages, it is probably intended as a consumable product; multi-year durability is questionable. There is little or no use of other forms of media. Essential components contain additions practice problems, but little or no differentiation for students of diverse ability levels.

F. Has available Ancillary/ Gratis Materials **Little or No Evidence**
Note: The decision whether to recommend or not recommend this resource as a basal should not be influenced by Section F

1) Ancillary/Gratis Materials

- Coordinates teacher resources easily with student material (e.g., accompaniments included, student pages shown, instructional technology indicated).
- Are well-organized and easy to use
- Provide substantive learning opportunities and are congruent with student learning goals

- Provide opportunities for high-level thinking, assessment, and/or problem solving
- Provides opportunities for intervention.

2) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

No additional resources were provided beyond the essential components.